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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Harald Kloeckner et al.

CASE NO: FA1144 US NA

SERIAL NO: 10/634,330

GROUP ART UNIT: 1762

FILED: August 4, 2003

EXAMINER: E. TSOY

FOR: METHOD FOR PAINTING PLASTIC

SUBSTRATES

REPLY BRIEF

Mail Stop Appeal Brief - Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. § 41.41, the following is a brief, filed in triplicate, in reply to Examiner's Answer mailed on July 28, 2006.

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I. STATUS OF CLAIMS

Claims 2-6 and 8-18 stand rejected and are the subject of this Appeal.

Original claims 1 and 7 have been cancelled.

II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 2-6, 8, 10-15 and 17-18 are obvious under 35 U.S.C. § 103(a) over Hellmann *et al.* US 5,412,000 in view of Ozawa *et al.* US 5,492,963 further in view of Shiraishi *et al.* US 6,670,414.

Whether claims 3, 12-15, and 17-18 are obvious under 35 U.S.C. § 103(a) over Shiraishi *et al* in view of Ozawa *et al*.

Whether claims 2, 4-6, 8, 10, 11 are obvious under 35 U.S.C. § 103(a) over Shiraishi *et al.* in view of Ozawa *et al.* further in view of Hellmann *et al.*

Whether claims 9 and 16 are obvious under 35 U.S.C. § 103(a) over Hellmann *et al.* in view of Ozawa *et al* in view of Shiraishi *et al.* further in view of Heaps *et al.* US 4,517,327 and Corcoran *et al.* US 5,279,962.

III. ARGUMENT

A. APPLICANTS' CLAIMS 2 AND 3 CONTAIN THE LIMITATION OF TWO BASE COAT LAYERS.

In contrast to the Examiner's Answer dated July 28, 2006 (hereinafter "Examiner's Answer"), claims 2 and 3 contain the important limitation of the application of two base coat layers. The firs, applied directly to the plastic substrate, contains the adhesion promoting composition B), and the second does not contain the adhesion promoting composition. In the Examiner's Answer, the following was stated: "Note that limitations of **two** base coat layers having and not having a component (B) are not addressed here because claim 2 recites in step (1) that a base coat layer consists of a color- and/or effect-imparting base coat, i.e. **two** base coat layers are **optional**." (Emphasis in the original) (Examiner's Answer, page 9, lines 9 -12). In response to the Applicants' assertions to the contrary, the Examiner responded that

The argument is unconvincing, limitations of claim 2 of **two** base coat layers having and not having a component (B) are not addressed here because claim 2 recites in step (1) that a base coat layer consists of a

color- and/or effect-imparting base coat, i.e., two base coat layers are optional. And Ozawa et al. do not teach away from the use of the chlorinated rubber component (see above)."

(Emphasis in the original) (See Examiner's Answer, page 13, last paragraph). This reading of independent claims 2 and 3 is clearly incorrect. Each claim has the same wording that **requires** the application of **two** base coats. The last paragraph of claim 1 states the following:

wherein in step (1) of applying the base coat layer consisting of a colour-and/or effect-imparting coating composition containing the adhesion-promoting composition B) directly to the plastic substrate and subsequently applying a layer of a colour- and/or effect-imparting coating composition which does not contain the adhesion-promoting composition B).

(emphasis added) (See Appeal Brief, Claims Attachment, p. 21, last paragraph to p. 22, line 3). The same "wherein" clause is the last paragraph of claim 3. (See Appeal Brief, Claims Attachment, p. 22, last paragraph to p. 23, line 5).

All of the remaining claims are either directly or indirectly dependent on claims 2 and 3 and therefore have the same limitation; that is, the method requires the application of two base coat layers wherein the first, applied directly to the plastic substrate, contains the adhesion promoting composition B) and the second layer applied over the first does <u>not</u> contain the adhesion promoting composition B). The advantage of Applicants' process over the prior art is the elimination of the primer coat by the application of a base coat with adhesion promoter to the plastic substrate and, with the application of a second base coat layer that does not contain the adhesion promoting composition, a finish is formed with increased depth of color and improved appearance in comparison to finishes having only one base coat layer or a primer layer and a base coat layer. None of the references cited by the Examiner either alone or in combination show the application of these two layers of base coat applied to a plastic substrate wherein the first layer contains an adhesion promoting composition and the second layer does not contain such a composition. Hence, the claims cannot be considered obvious over these references.

As pointed out in the Appeal Brief, Section 2142 of the MPEP clearly states that a *prima facie* case of obviousness can only be established when **all** of the claim limitations are either taught or suggested by the cited prior art. (See Appeal Brief,

pages 15-16). The limitation of a second base coat that does not contain the adhesion promoting composition B) in order to improve appearance is not taught or suggested by any of the references. Claims 4-6, 8-11 are dependent on claim 2 and claims 13-18 are dependent on claim 3 and thereby contain the same limitation of requiring two base coats. The Examiner's rejection is clearly in error and for this reason the rejection must be withdrawn and all claims allowed.

It should be noted that in the Advisory Action mailed April 4, 2006 (herein after Advisory Action), the Examiner entered the amendment that required the application of a second base coat without the presence of the adhesion promoting component B) but argued erroneously that Hellmann *et al.* US 5,412,000 showed a three coat process of a primer coat, base coat and clear top coat equating the primer coat to a basecoat and using the terms interchangeably. (See Advisory Action, page 2, par. 1 and page 3, par. (A)) No position was taken or noted that the amendment which was entered requiring the application of a second base coat was an optional coating layer.

B. CLAIMS 2-6, 8, 10-15 AND 17-18 ARE UNOBVIOUS UNDER 35 U.S.C. § 103(A) OVER HELLMANN ET AL. IN VIEW OF OZAWA ET AL. FURTHER IN VIEW OF SHIRAISHI ET AL.

The Examiner's rejection is based entirely on the false premise that "There is no art recognized chemical difference between primers and base coats."

(Emphasis in original, see Examiner's Answer, page 7, lines 1-2). This is entirely incorrect, and, in the Appeal Brief, page 8, first full paragraph to page 12 end of top paragraph, the art recognized difference between base coats and primers was pointed out and supported by a text reference and an encyclopedia reference. (See Appeal Brief, Evidence Appendix page 26). The Examiner cannot choose bits and pieces from other patents, such as, Faul et al. US Patent 5,258,460, Muller US Patent 4,572,792 or Scopazzi et al. 5,859,136 in an effort to support her position when evidence has been presented during prosecution and in the Appeal Brief that clearly supports the premise that "base coats" and "primer" are totally different and provide a coated substrate with different properties. These terms used in the claims have a clear plain meaning and must be viewed as such. When terms have clear,

plain meaning provided by credible evidence, an applicant need not explain such terms in the specification as contended by the Examiner.

Hellmann et al. was cited as disclosing a method for painting motor vehicles and parts having plastic surfaces comprising applying a pigmented coating composition. Hellmann et al. is directed toward a primer composition and not a base coat and contains as the film forming binder component an epoxy resin. The compositions used Appellant's process do not contain an epoxy resin, but the binder is selected from the group consisting of polyurethane, acrylated polyurethane, polyacrylate, polyester, acrylated polyester and alkyd resins". (see Appeal Brief, claims 2 and 3, claims appendix, pages 21 and 22). Furthermore, epoxy resins cannot be used as an exterior automotive coating since these resins are subject to UV degradation. Also, as the Examiner recognized "Hellmann et al. failed to teach that the coating composition further comprises chlorinated rubber (Claim 1) in an amount of 0.5-10 wt % (Claim 6)". (See Examiner's Answer, page 5, lines 5-6). Also, as pointed out above, Hellmann et al. does not teach the application of two base coat layers, the first containing the adhesion promoting composition B) applied directly to the plastic substrate and the second not containing the adhesion promoting composition.

Ozawa et al. was cited and held to teach that chlorinated natural rubber and synthetic rubbers have been found to provide excellent film-forming properties and environmental resistance and that chlorinated polyolefins have significantly high chlorine content of 60-75 wt % and provide performance equivalent to or greater than the performance provided by the traditional chlorinated rubber materials utilized in adhesive compositions to provide effective adhesional affinity for vulcanized rubber and environmental resistance. (See Examiner's Answer, p.5, lines 7-13). However, Ozawa et al. is directed to adhesive compositions and to bonding various materials together, such as elastomeric materials to metals. There is no teaching or suggestion of Appellant's invention of painting a plastic substrate with two base coat layers, the first containing an adhesion promoting composition B) directly to the plastic substrate and applying a second base coat that does not contain the adhesion promoting composition.

The background of the Ozawa et al. invention is that it was known that chlorinated rubbers form adhesive compositions that provide good adhesion of elastomeric materials to metal surfaces but require the utilization of highly chlorinated solvents, such as carbon tetrachloride, which are unfriendly to the environment. The problem was overcome by using high chlorine content chlorinated polyolefins in place of the chlorinated rubber which does not require the use of highly chlorinated solvents. (See generally Ozawa et al., col. 1, lines 16-61). Ozawa et al. has nothing to do with primers, base coats or multilayer coatings or the application of two base coats to a plastic substrate but is directed to adhesives and teaches that · highly chlorinated polyolefins are used in place of conventional chlorinated rubbers in adhesives. There is no logic to the Examiner's position that one would substitute "at least a portion of commercial chlorinated polyolefins of Hellmann et al having low chlorine contents of only 10-25 wt% with traditional chlorinated rubber with the expectation of providing the desired improved adhesive properties". (See Examiner's Answer, p. 5, lines 18-20) (emphasis in original). At best, if one skilled in the art could make the transition from adhesives to a process for applying multilayer coatings, one would use only the highly chlorinated polyolefins and not use chlorinated rubbers. In contrast, the adhesion promoting composition B) of Appellants initial base coat applied to the plastic substrate requires both chlorinated rubber and chlorinated polyolefin.

Shiraishi et al. does not show or suggest Applicants' novel process wherein two basecoats are applied directly to a plastic substrate without the use of a primer layer wherein the first basecoat contains the adhesion promoting composition of ethylene vinyl acetate copolymer, chlorinated rubber and chlorinated polyolefin and the second layer is identical to the first layer but does not contain the adhesion promoting composition. A clear coat layer is then applied (claim 2). The process of claim 3 is identical to claim 2 except a clear coat layer is not applied.

Further and more important, Shiraishi *et al.* does not disclose the use of chlorinated rubber which is a necessary component of the adhesion promoting composition of the coating composition used in Applicants' process.

The MPEP in Section 2142 states that a *prima facie* case of obviousness is only established when (1) all of the claim limitations are either taught or suggested

by the cited prior art; (2) there is some suggestion or motivation to modify or combine the cited prior art references; and (3) there is reasonable expectation of successfully producing the claimed invention via such a combination that is not based on applicant's disclosure. The Examiner's rejection fails on all three and therefore a prima facie case of obviousness cannot be made.

The first prong of the *prima facie* case fails since neither Hellmann *et al.* nor Ozawa *et al.* nor Shiraishi *et al.* teach or suggest the application of a second coating layer that does not contain the adhesive component B) contained in the first layer applied directly to the plastic substrate. Furthermore, none of the cited references teach the adhesive component B) that requires the presence of both a chlorinated rubber and a chlorinated polyolefin. In fact, neither Hellmann *et al.* nor Shiraishi *et al.* teach the use of a chlorinated rubber in coating compositions. Ozawa *et al.*, directed to adhesives and not to application of a multilayer coating, teaches that chlorinated polyolefins provided improved compositions over adhesives containing chlorinated rubber.

There is no suggestion or teaching in Ozawa *et al.* that the adhesive compositions taught would be useful as coating compositions and more importantly that a combination of chlorinated rubber and chlorinated polyolefin would provide improved adhesive characteristics to a coating composition. MPEP § 2143.01(III), citing *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990), states that "[t]he mere fact that references <u>can</u> be combined or modified does not render the resultant combination obvious unless the prior art also suggest the desirability of the combination." (emphasis in original). Since there is no such suggestion here, the obviousness rejection cannot stand. Hence, there is no motive to combine Ozawa *et al.* with the Hellmann *et al.* or Shiraishi *et al.* and the second prong of the *prima facie* obviousness test fails.

Without Appellants disclosure, there is no reasonable basis for concluding that when a first coating layer is applied in Appellants' process containing adhesion promoting composition B) having both chlorinated rubber and chlorinated polyolefin and then a second layer is applied that does not contain adhesion promoting composition B), a multilayer coating would form having improved appearance including color accuracy and depth of color and excellent adhesion to the plastic

substrate without the use of a primer coating. Thus, the third prong of the *prima* facie obviousness case fails.

It is respectfully requested that since all three of the prongs of the *prima facie* obvious case failed, the rejection of claims 2-6, 8, 10-15, 17-18 based on Hellmann *et al.* Ozawa *et al.* and Shiraishi *et al.* be withdrawn and the claims allowed.

C. CLAIMS 3, 12-15 AND 17-18 ARE UNOBVIOUS UNDER 35 U.S.C. § 103(A) OVER SHIRAISHI ET AL. IN VIEW OF OZAWA ET AL.

Claim 3 is directed to a process for coating a plastic substrate by applying a first pigmented monocoat layer directly to a plastic substrate and then applying a second pigmented monocoat layer that does not contain the adhesion promoting composition (B) to the first layer. Claim 3 and dependent claims 12-15, 17 and 18 were rejected over Shiraishi et al. in view of Ozawa et al. The patentable differences between the Shiraishi et al. and Ozawa et al. references and Appellants' process are discussed in detail above and will not be set forth again.

A prima facie case of obviousness has not been made for these claims based on Shiraishi et al. and Ozawa et al. As pointed out above, not all the claim limitations are taught. Neither Shiraishi et al. nor Ozawa et al. show or suggest the application of a second pigmented mono coat layer that does not contain the adhesion promoting composition over the first pigmented mono coat layer containing the adhesion promoting composition that has been applied directly to the plastic substrate. Neither Shiraishi et al. nor Ozawa et al. teach the use of chlorinated rubber as one of the adhesion promoting components which Applicants require in the first pigmented mono coat that is applied to the plastic substrate. Ozawa et al. actually teaches away from using the chlorinated rubber component and suggests the use of chlorinated polyolefins in the place of chlorinated rubbers and more importantly is primarily directed to adhesive for metals so that there is no suggestion or motivation to combine the teachings of Ozawa et al. with Shiraishi et al. In view of the above, there can be no reasonable expectation of producing Appellant' invention via the combination of these references unless Applicants' disclosure was used along with hindsight reasoning.

In view of the above arguments and that claims 12 -15, 17 and 18 are dependent from claim 3 and recite further limitations for claim 3, Applicants submit that all of these claims are unobvious and patentable over Shiraishi *et al.* in view of Ozawa *et al.*

D. CLAIMS 2, 4-6, 8, 10 AND 11 ARE UNOBVIOUS OVER SHIRAISHI ET AL. IN VIEW OF OZAWA ET AL. FURTHER IN VIEW OF HELLMANN ET AL.

Claim 2 is directed to a process for coating a plastic substrate by applying a first pigmented base coat layer directly to a plastic substrate without the use of a primer layer and then applying a second pigmented base coat layer that does not contain the adhesion promoting composition (B) to the first layer and then applying a transparent clear coat layer thereto. Claim 2 and dependent claims 4-6, 8, 10 and 11 were rejected over Shiraishi *et al.* in view of Ozawa *et al.* further in view of Hellmann *et al.* The patentable differences of Shiraishi *et al.*, Ozawa *et al.* and Hellmann *et al.* references are discussed above and will not be set forth again.

A *prima facie* case of obviousness has <u>not</u> been made for these claims based on the citation of Hellmann *et al.*, Shiraishi *et al.* and Ozawa *et al.* As pointed out above, not all of the claim limitations are taught.

None of the reference teach or suggest the application of a second pigmented color base coat layer that does not contain the adhesion promoting composition over a first base coat layer. There is no teaching in Hellmann *et al.* that the second layer is the identical composition without the presence of the adhesion promoter composition as is required by Appellants' process. The application of a subsequent or second pigmented color base coat layer adds to the depth of color of the coating and significantly improves appearance.

None of the references teach the use of the chlorinated rubber component that is a necessary constituent of the adhesion promoting composition B) used in Appellants' coating composition that is applied directly to the plastic substrate. Ozawa *et al.* is directed to adhesive compositions for metal substrates and, as pointed out above, actually teaches away from using this component and suggests

the use of chlorinated polyolefin in its place. Based on this, there is no motivation to combine the teachings of Ozawa *et al.* with Hellmann *et al.* and Shiraishi *et al.*

Based on Ozawa *et al.* there cannot be a reasonable expectation of success since Ozawa *et al.* teaches away from the use of the chlorinated rubber component. Therefore, if the teaching of Ozawa *et al.* were combined with the other reference, the coating composition used in Applicants' process would not be formed since it would not have one of the necessary components, i.e., chlorinated rubber. Further, success can not be predicted since none of the references teach the second layer of coating applied over the first layer applied to the plastic substrate. One skilled in the art could not possibly arrive at Applicants' invention based on the teachings of the above cited references without the use of Applicants' disclosure.

Claim 2 and the corresponding dependent claims require the application of a clear coat layer over the second pigmented base coat layer. Shiraishi *et al.* is directed only to mono coat compositions and does not mention the application of a clear coat layer.

In view of the above arguments and that claims 4-6, 8, 10 and 11 are dependent from claim 2 and recite further limitations for claim 2, Applicants submit that all of these claims are unobvious and patentable over Hellmann *et al.*, Shiraishi *et al.* in view of Ozawa *et al.*

E. CLAIMS 9 AND 16 ARE UNOBVIOUS OVER HELLMANN ET AL, IN VIEW OF OZAWA ET AL. IN VIEW OF SHIRAISHI ET AL. IN VIEW OF OZAWA ET AL. FURTHER IN VIEW OF HEAPS ET AL. AND CORCORAN ET AL.

Claim 9 which is dependent on claim 2 provides that the base coating composition is a water based composition. Claim 16 which is dependent on claim 3 also provides that the mono coat composition is a water based composition. Heaps et al. merely states that water based compositions can be used in place of solvent based compositions but does not make up for any of the deficiencies of the aforementioned references of Hellmann et al., Ozawa et al. and Shiraishi et al. Corcoran et al. merely states that a base coat can be either a water borne or solvent borne composition but does not make up for any of the deficiencies of the above

cited references that have been fully discussed and distinguished over. Since claims 9 and 16 are dependent on claims 2 and 3 respectively and these claims have been argued and distinguished from the aforementioned references, Claims 9 and 16 should also be considered allowable.

IV. CONCLUSION

For the reasons set forth above, the Board is respectfully requested to reverse the final rejection of pending Claims 2–6 and 8-18 and indicate allowability of all claims.

Please charge any fee due which is not accounted for to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

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First Named Inventor: Harald Kloeckner Title: Method for Painting Plastic Substrates Attorney Docket No: FA1144 US NA

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